

18/3,K/1 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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04484490 JICST ACCESSION NUMBER: 00A0145095 FILE SEGMENT: JICST-E
Development of ZnSe Light Emitting Diode .
SAEGUSA AKIHIKO (1); MATSUBARA HIDEKI (1); NAKANISHI FUMITAKE (1);
NAKAMURA TAKAO (1); DOI HIDEYUKI (1); KATAYAMA KOJI (1); MITSUI
TADASHI (1); TAKEBE TOSHIHIKO (1)
(1) Sumitomo Electr. Ind., Ltd.
Denki Gakkai Hikari, Ryoshi Debaisu Kenkyukai Shiryo, 1999,
VOL.OQD-99,NO.50-55, PAGE.1-5, FIG.11, REF.6
JOURNAL NUMBER: Z0922AAY
UNIVERSAL DECIMAL CLASSIFICATION: 621.383:535.35 535.376:621.315.592
548.5:621.315.592
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Conference Proceeding
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

Development of ZnSe Light Emitting Diode .
SAEGUSA AKIHIKO (1); MATSUBARA HIDEKI (1); NAKANISHI FUMITAKE (1);
NAKAMURA TAKAO (1); DOI HIDEYUKI (1); KATAYAMA KOJI (1); MITSUI
TADASHI (1); TAKEBE TOSHIHIKO (1)
...ABSTRACT: 800 hours until the optical decreases to half of the initial
value. Also the correlated **color** temperature of the white was the
range of 3000K and above. This LED can be...
DESCRIPTORS: **light emitting diode** ; ...
... **color** temperature

18/3,K/2 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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03634483 JICST ACCESSION NUMBER: 98A0593299 FILE SEGMENT: JICST-E
**98 flat displays. LED display. Large LED full color display. Expanding
applications by the practical application of blue LED.**
OKAZAKI NORIHIKO (1); **NAKAMURA TAKAO** (1); KISHITA HIROYUKI (1)
(1) Matsushita Commun. Ind. Co., Ltd.
Denshi Gijutsu(Electronic Engineering), 1998, VOL.40,NO.9, PAGE.57-62,
FIG.9, TBL.1
JOURNAL NUMBER: F0571AAK ISSN NO: 0366-8819 CODEN: DEGIA
UNIVERSAL DECIMAL CLASSIFICATION: 621.383:535.35 621.385:621.397
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication

**98 flat displays. LED display. Large LED full color display. Expanding
applications by the practical application of blue LED.**
OKAZAKI NORIHIKO (1); **NAKAMURA TAKAO** (1); KISHITA HIROYUKI (1)
...DESCRIPTORS: **light emitting diode** ; ...
... **color** display

18/3,K/3 (Item 3 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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03445378 JICST ACCESSION NUMBER: 98A0091099 FILE SEGMENT: JICST-E
Personal Computer Technologies. Contact-Type Color Image Sensor Unit.
NAKAMURA TETSURO (1); MURATA TAKAHIKO (1); TANAKA EIICHIRO (1)
(1) Matsushitadenkisangyo Dokyumentogikaise
Nat'l Tech Rep, 1997, VOL.43,NO.6, PAGE.638-644, FIG.17, TBL.2
JOURNAL NUMBER: G0474AAH ISSN NO: 0028-0291 CODEN: NTROA

UNIVERSAL DECIMAL CLASSIFICATION: 681.327.2
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication

Personal Computer Technologies. Contact-Type Color Image Sensor Unit.

NAKAMURA TETSURO (1); MURATA TAKAHIKO (1); TANAKA EIICHIRO (1)
ABSTRACT: A new **color** linear light source using a light guide has been developed by an original optical analysis...

...can illuminate an A4-size document with one chip each of blue, green and red **colors**. Great reduction in cost and power consumption has been attained. Also, a new **color** image sensor chip has been developed by CMOS process. This sensor chip operates on low...

...high sensitivity have been attained by a common gate amplifier. In addition, an A8-size **color** image sensor unit has been developed for handy scanners. This unit has one light source...

...DESCRIPTORS: **color** image...

... **light emitting diode** ;

18/3,K/4 (Item 4 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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01597544 JICST ACCESSION NUMBER: 92A0759139 FILE SEGMENT: JICST-E

Red Electroluminescent Devices Using CdSSe:Mn-ZnS Superlattices.

TAKEUCHI YOJI (1); HIKIDA KYOKO (2); **NAKAMURA TAKATO** (2); ISHINO KEN'EI (2); ISHIDA AKIHIRO (2); FUJIYASU HIROSHI (2)

(1) Shizuoka Univ.; (2) Shizuoka Univ., Faculty of Engineering
Shinku(Journal of the Vacuum Society of Japan), 1992, VOL.35,NO.9,
PAGE.781-786, FIG.6, TBL.2, REF.15

JOURNAL NUMBER: G0194AAG ISSN NO: 0559-8516 CODEN: SHINA

UNIVERSAL DECIMAL CLASSIFICATION: 621.382 SS 621.383:535.35
535.376:621.315.592

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

; HIKIDA KYOKO (2); **NAKAMURA TAKATO** (2); ISHINO KEN'EI (2); ISHIDA AKIHIRO (2); FUJIYASU HIROSHI (2)

...DESCRIPTORS: **light emitting diode** ;

...BROADER DESCRIPTORS: **color** ;

20/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2002 Institution of Electrical Engineers. All rts. reserv.

6546785 INSPEC Abstract Number: B2000-05-4260D-020

Title: White LED

Author(s): Bogner, G.; Debray, A.; Heidel, G.; Hoehn, K.; Muller, U.; Schlotter, P.

Author Affiliation: OSRAM Opto Semicond. GmbH, Germany

Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA)

vol.3621 p.143-50

Publisher: SPIE-Int. Soc. Opt. Eng,

Publication Date: 1999 Country of Publication: USA

CODEN: PSISDG ISSN: 0277-786X

SICI: 0277-786X(1999)3621L.143:W;1-5

Material Identity Number: C574-1999-152

U.S. Copyright Clearance Center Code: 0277-786X/99/\$10.00

Conference Title: Light-Emitting Diodes: Research, Manufacturing, and Applications III

Conference Sponsor: SPIE

Conference Date: 27-28 Jan. 1999 Conference Location: San Jose, CA, USA

Language: English

Subfile: B

Copyright 2000, IEE

Abstract: Since **several** years **light emitting diodes** are in use to generate white light. Pixels with green, red and blue **LEDs** are arranged to get any coordinate in the CIE-diagram with matched **current** for each diode. Luminescence conversion is a very promising method for production of white **LEDs**. An efficiency of more than 10 lm/W is already possible which is as high as the efficiency of a normal incandescent lamp. First volume projects with white **LEDs** for **backlighting** of dashboard and indicator instruments in the automotive area are running. By supplying more powerful ...

... UV-light only the emission spectrum of the fluorescence is responsible for the final LED **color** coordinates. Wavelength variations of the diode no longer influence the **color** point. This technology and further developments to **increase** the chip brightness make common illumination with **LEDs** possible.

...Descriptors: **light emitting diodes** ;

...Identifiers: mixed **colored** light...

... **backlighting** ;

25/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2002 Institution of Electrical Engineers. All rts. reserv.

03012878 INSPEC Abstract Number: B87076274, C87063964

Title: Ultrasonic and infrared: from remote control to learning service

Author(s): Hafner, H.

Journal: Funkschau no.17 p.20-4

Publication Date: 14 Aug. 1987 Country of Publication: West Germany

CODEN: FUSHA2 ISSN: 0016-2841

Language: German

Subfile: B C

Abstract: Presents a clear survey of remote control systems in consumer electronics, covering ultrasonic and **infrared devices** over the period since the 1950s. Ultrasonic systems were finally abandoned because they used up to 30 channels in the range between the line frequency and its 2nd harmonic. **Several** reasons explain their replacement by IR operation. Modern IR keypads usually employ two GaAs IR- **LEDs** as transmitters in series or parallel in digital code. A table compares the characteristics of 3 typical ICs used by TV manufacturers. **Many** features are common, e.g. 64 commands, 8*8 keying matrix, clock generator at about...

... 14 bit are transmitted on a 38 kHz carrier, which is sometimes suppressed, or by **pulse width modulation** in biphase code. Of interest is the emphasis on batteries used and the development towards...

... can be programmed by users by a 'teaching dialogue' between it and any equipment with **IR** remote facilities. Such **devices** will ease service problems arising out of the multiplicity of differing systems. In future, universal...

...Identifiers: **pulse width modulation** ;

25/3,K/2 (Item 1 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

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04895070 E.I. No: EIP97123965274

Title: Growth and characterization of mid-IR InAs//0///9Sb//0///1/InAs strained multiple quantum well light emitting diodes grown on InAs substrates

Author: Grietens, B.; Nemeth, S.; Van Hoof, C.; Van Daele, P.; Borghs, G. Corporate Source: IMEC, Leuven, Belgium

Source: IEE Proceedings Optoelectronics v 144 n 5 Oct 1997. p 295-298

Publication Year: 1997

CODEN: IPOPE8 ISSN: 1350-2433

Language: English

Title: Growth and characterization of mid-IR InAs//0///9Sb//0///1/InAs strained multiple quantum well light emitting diodes grown on InAs substrates

Abstract: Molecular beam epitaxy (MBE) has been used to grow strained **multiple quantum well InAs//0///9Sb//0///1 light - emitting diodes (LEDs)** lattice matched on InAs substrates. The **LEDs** exhibit room-temperature infrared emission at 3.4 μ m and can be used to...

...was 27.5 μ W under pulsed operation at 740 mA (30 kHz, 0.6% **duty cycle**). (Author abstract) 13 Refs.

Descriptors: **Light emitting diodes** ; Semiconductor quantum wells; Semiconducting indium compounds; **Infrared devices** ; Semiconductor **device** manufacture; Electroluminescence; Thermal effects; Substrates; Composition effects; Semiconductor growth

25/3,K/3 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

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13871983 PASCAL No.: 99-0050220

Growth and characterisation of mid-IR InAs SUB 0 SUB . SUB 9 Sb SUB 0 SUB
. SUB 1 /InAs strained multiple quantum well light emitting diodes
grown on InAs substrates

Mid- IR optoelectronics - materials and devices

GRIETENS B; NEMETH S; VAN HOOFF C; VAN DAELE P; BORGHES G

KRIER Tony, ed

IMEC, Kapeldreef 75, 3001 Leuven, Belgium; Department of
Microelectronics, FEL, Slovak Technical University, Ilkovicova 3, 812 19
Bratislava, Slovakia; INTEC, St.-Pietersnieuwstraat 41, 9000 Gent, Belgium
Department of Physics at Lancaster University, United Kingdom
Journal: IEE proceedings. Optoelectronics, 1997, 144 (5) 295-298
Language: English

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...IR InAs SUB 0 SUB . SUB 9 Sb SUB 0 SUB . SUB 1 /InAs strained
multiple quantum well light emitting diodes grown on InAs substrates

Mid- IR optoelectronics - materials and devices

Molecular beam epitaxy (MBE) has been used to grow strained multiple
quantum well InAs SUB 0 SUB . SUB 9 Sb SUB 0 SUB . SUB 1 light - emitting
diodes (LEDs) lattice matched on InAs substrates. The LEDs exhibit
room-temperature infrared emission at 3.4 μ m and can be used to...

...output power was 27.5 μ W under pulsed operation at 740mA (30kHz, 0.6%
duty cycle).

English Descriptors: Light emitting diode ; Quantum well;
Semiconductor materials; III-V compound; Mid infrared radiation;
Molecular beam; Epitaxy; Growth; Characterization...

31/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2002 Institution of Electrical Engineers. All rts. reserv.

4632117 INSPEC Abstract Number: B9405-7260-006

Title: Novel prospects for EL displays

Author(s): Pankove, J.I.

Author Affiliation: Dept. of Electr. & Comput. Eng., Colorado Univ.,
Boulder, CO, USA

Journal: Proceedings of the SPIE - The International Society for Optical
Engineering vol.1910 p.205-11

Publication Date: 1993 Country of Publication: USA

CODEN: PSISDG ISSN: 0277-786X

U.S. Copyright Clearance Center Code: 0 8194 1143 4/93/\$6.00

Conference Title: Electroluminescent Materials, Devices, and Large-Screen
Displays

Conference Sponsor: SPIE; Soc Imaging Sci. & Technol

Conference Date: 1-2 Feb. 1993 Conference Location: San Jose, CA, USA

Language: English

Subfile: B

...Abstract: limitations. Electroluminescence appears on the threshold of
significant changes, hence it is too early to **set** standards. The driving
voltage is coming down, **brightness** and efficiency are increasing, and
the color range is expanding. The author reviews **several** developments
that may lead to new EL devices: excitation by tunneling hot carriers,
recombination of...

... by pn junctions into wide bandgap materials, and the use of quantum
wells to increase **brightness** and efficiency and to adjust the color by
mechanical design rather than by chemical strategy...

...Descriptors: **light emitting diodes** ;

...Identifiers: driving **voltage** ; ...

... **brightness** ;

31/3,K/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2002 Institution of Electrical Engineers. All rts. reserv.

03605623 INSPEC Abstract Number: B90032159, C90027317

Title: An electronic display board

Author(s): Singh, H.R.; Chatterjee, D.; Kapoor, M.R.; Pavate, K.D.

Author Affiliation: Central Electron. Eng. Res. Inst. Centre, CSIR, New
Delhi, India

Journal: IETE Technical Review vol.6, no.3 p.220-2

Publication Date: May-June 1989 Country of Publication: India

CODEN: ITREEI ISSN: 0256-4602

Language: English

Subfile: B C

...Abstract: the design and development of a microprocessor based
electronic display board for displaying information of **specific** values on
a 2*2 square feet electronic board consisting of low **current LEDs**. The
main system is built around an 8085 microprocessor with other supporting
chips. The display board consists of low **current LEDs**, its driver
circuit to maintain a proper and uniform **brightness** of all **LEDs** and a
few 8255 PPIs to be used as data and control ports. The system...

...displays the information which are entered from the keyboard. The screen
can be used for **many** diverse applications.

...Descriptors: **light emitting diodes** ;

Identifiers: low **current** LED...

31/3,K/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2002 Institution of Electrical Engineers. All rts. reserv.

03084237 INSPEC Abstract Number: B88022479

Title: A low-power semicustom integrated eight-channel infrared telemetry system for condition monitoring

Author(s): van Maaren, D.C.; Nordholt, E.H.

Author Affiliation: Dept. of Electr. Eng., Delft Univ. of Technol., Netherlands

Journal: Journal of Semi-Custom ICs vol.5, no.2 p.12-22

Publication Date: Dec. 1987 Country of Publication: UK

CODEN: JSCIER ISSN: 0264-3375

Language: English

Subfile: B

...Abstract: power infrared LED-PIN transmission link forms the basis of a highly reliable semicustom integrated **multi**-channel wireless telemetry system, to be used for acoustic-emission-level measurement in condition-monitoring...

... of about 12 kHz. Channel spacing is 22 kHz. The FM signal modulates the light **intensity** of four series-connected **LEDs** which together yield an average radiant **intensity** of 0.5 mW/sr at an average **current** of 1 mA. The FM signal includes zero-reference information to preserve the DC information...

... The receiver system has two separate detectors for diversity reception. Each detector has its own **preselection** circuitry, which rejects interference outside the 180-360 kHz band and provides low-noise amplification...

...Identifiers: series-connected **LEDs** ; ...

... **preselection** circuitry

31/3,K/4 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

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0729708 NTIS Accession Number: PB-286 106/0/XAB

Personal Alpha Alarm

(Open file rept)

Lindsay, D. B. ; Cohen, M. L.

Little (Arthur D.), Inc., Cambridge, MA.

Corp. Source Codes: 208850

Sponsor: Bureau of Mines, Washington, DC.

Report No.: BUMINES-OFR-105-78

31 Mar 78 87p

Languages: English

Journal Announcement: GRAI7901

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A05/MF A01

...and can easily be mounted on a miner's safety cap. It is powered by **electricity** drawn from the cap-lamp battery, and consumes less than 100 nanoampere at 4 **volts** direct **current**. It is entirely passive and has no moving parts. Alpha-radiation originating in the air...

... radiation in the air is communicated to the wearer by a small flashing light--a **light - emitting diode** --clipped to the brim of the safety cap. When the **intensity** of alpha radiation exceeds a **predetermined** threshold, the flashing mode changes to a continuous illumination, thus providing an alarm signal to...

... For its intended purpose, however, which is to give a timely warning of excessive levels (**several** times the normal control level) of radon and/or radon daughters in an individual's...

31/3,K/5 (Item 2 from file: 6)
DIALOG(R)File 6:NTIS
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0542902 NTIS Accession Number: UCRL-13603/XAB

Shaped Pulse Study. Final Report

Massey, G. A. ; Elliott, R. A.
California Univ., Livermore Lawrence Livermore Lab.
Corp. Source Codes: 9500007
15 Aug 75 5lp
Journal Announcement: GRAI7609; NSA7510
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A04/MF A01

... study of techniques for shaping optical pulses at wavelengths near 1.06 micrometers. For the **specific** application of interest to Lawrence Livermore Laboratory, the **intensity** of the pulse envelope should vary with time according to the expression $I(t) = I...$

...an optical shutter whose transmission is controlled with a gating signal to achieve the desired **intensity** time variation on a transmitted signal pulse. In this way it is possible to use...

... gating pulse shapes, e.g., exponential or Gaussian optical pulses with the dye cell or **voltage** ramps or sinusoids with the Pockels cell, to synthesize a very different time waveform on...

...cells and dye cells. Since relaxation effects become significant in dyes over time periods of **several** nanoseconds, and rapid transmission changes become more difficult to achieve in Pockels cells when the...

Descriptors: Visible radiation; *Pulse shapers; Design; **Light emitting diodes** ; Light sources; Modulation

31/3,K/6 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2002 Inst for Sci Info. All rts. reserv.

05594098 Genuine Article#: WJ685 No. References: 8

Title: A LED light calibration source for dual-wavelength microscopy

Author(s): Beach JM (REPRINT)

Corporate Source: UNIV VIRGINIA, HLTH SCI CTR, DEPT BIOMED ENGN, 1105 W MAIN ST, STACEY HALL/CHARLOTTESVILLE//VA/22903 (REPRINT); UNIV VIRGINIA, HLTH SCI CTR, DEPT OPHTHALMOL/CHARLOTTESVILLE//VA/22903

Journal: CELL CALCIUM, 1997, V21, N1 (JAN), P63-68

ISSN: 0143-4160 Publication date: 19970100

Publisher: CHURCHILL LIVINGSTONE, JOURNAL PRODUCTION DEPT, ROBERT STEVENSON HOUSE, 1-3 BAXTERS PLACE, LEITH WALK, EDINBURGH, MIDLOTHIAN, SCOTLAND EH1 3AF

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: circular field of bi-chromatic illumination is formed by passing the crossed beams of two **light emitting diodes** (**LEDs**) through an optical diffuser and circular mask. The source is constructed using **LEDs** which emit light at wavelengths overlapping those of **many** of the dual-emission molecular probes used for measurement of calcium, pH and membrane potential. The light output can be independently varied to **set** the ratio of light **intensities** recorded at two wavelengths. Internally sampled **voltages** which are proportional to LED light output **intensity** provide an internal reference for comparison with optical recordings. The LED source is useful for obtaining the optical response of dual emission recording equipment for **specific** recording conditions defined by the filtering and light detection components of the system.

31/3,K/7 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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03439803 Genuine Article#: PD440 No. References: 21
Title: WINDOW LAYER FOR CURRENT SPREADING IN ALGAINP LIGHT - EMITTING DIODE
Author(s): CHI GC; SU YK; JOU MJ; HUNG WC
Corporate Source: IND TECHNOL RES INST, OPTOELECTR & SYST
LABS/HSINCHU//TAIWAN/; NATL CHENG KUNG UNIV, DEPT ELECT
ENGN/TAINAN//TAIWAN/
Journal: JOURNAL OF APPLIED PHYSICS, 1994, V76, N5 (SEP 1), P2603-2611
ISSN: 0021-8979
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: WINDOW LAYER FOR CURRENT SPREADING IN ALGAINP LIGHT - EMITTING DIODE

Abstract: The **current** spreading effect and other characteristics of an AlGaInP double-heterojunction (DH) **light - emitting diode** (LED) were investigated via numerical calculation and experimental results. The finite difference method was employed...

...of a semiconductor device. Poisson's equation and two continuity equations were approximated by a **set** of equations under the assumption that the hole and electron **current** components along the mesh lines are constant between two neighboring mesh points. Additionally, the DH...

...model, in light of the fact that the former does not contribute significantly to the **current** spreading effect. Furthermore, a comparison of the measured light **intensities** from **LEDs** with the calculated **current** densities revealed a sufficient correlation. Experimental results indicated that a 10-mum-thick window layer...

...Research Fronts: SEMICONDUCTOR-DEVICE EQUATIONS; IDEAL SILICON P-N-JUNCTIONS)
92-6220 003 (ALGAINP/GAXIN1-XP STRAINED **MULTIPLE** QUANTUM-WELL VISIBLE LASER-DIODES; ROOM-TEMPERATURE CW OPERATION; GAS-SOURCE MOLECULAR-BEAM EPITAXY)
92...

31/3,K/8 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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02994185 Genuine Article#: MV089 No. References: 65
Title: PICOSECOND TRANSIENT PHOTOCONDUCTIVITY IN POLY(P-PHENYLENEVINYLENE)
Author(s): LEE CH; YU G; MOSES D; HEEGER AJ
Corporate Source: UNIV CALIF SANTA BARBARA, INST POLYMERS & ORGAN
SOLIDS/SANTA BARBARA//CA/93106; UNIV CALIF SANTA BARBARA, DEPT
PHYS/SANTA BARBARA//CA/93106
Journal: PHYSICAL REVIEW B-CONDENSED MATTER, 1994, V49, N4 (JAN 15), P
2396-2407
ISSN: 0163-1829
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

...Abstract: of about 600 ps. The magnitude of the fast component is proportional to the light **intensity** and independent of temperature, while the magnitude of the slower component is proportional to the square root of the light **intensity** and decreases as temperature decreases with a thermal-activation energy of about 100 meV. We...

...an interband transition. The interpretation of the initial temperature-independent transient photocurrent as the displacement **current** from the field-induced polarization of neutral excitons is ruled out by careful analysis of...

...E(exc) approximate to 0.4 eV. A variety of measurements has enabled us to **set** an upper limit on E(exc) in PPV and **several** of its alkoxy derivatives; E(exc) is comparable to, or less than, $k(B)T$...

...Identifiers--POLYDIACETYLENE SINGLE-CRYSTALS; **LIGHT - EMITTING - DIODES**; POLY(PARA-PHENYLENE VINYLENE); CONDUCTING POLYMERS; CONJUGATED POLYMERS; POLY(2,5-THIENYLENE VINYLENE); POLY(PHENYLENE...

31/3,K/9 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
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01669434 ORDER NO: AAD99-06145
THE RAPID SOLID-STATE SYNTHESIS OF GROUP III AND TRANSITION METAL NITRIDES AT AMBIENT AND HIGH PRESSURES (GALLIUM NITRIDE)

Author: WALLACE, CHARLES HENRY

Degree: PH.D.

Year: 1998

Corporate Source/Institution: UNIVERSITY OF CALIFORNIA, LOS ANGELES (0031)

Source: VOLUME 59/09-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 4806. 209 PAGES

...of ultra-pure, crystalline materials. To meet this need, new ways of synthesizing materials with **specific** properties that are difficult or impossible to produce using traditional methods must be developed. The...

...and electronic materials, such as binary and ternary metal carbides, nitrides, phosphides, sulfides and oxides. **Several** important materials, including graphite, gallium nitride, indium nitride, tantalum nitride, silicon nitride and cubic boron...

...materials. Since gallium nitride is an important direct wide-bandgap semiconductor of interest for high **brightness**, blue **light - emitting diodes**, lasers and flat panel displays, a large majority of the research described has been devoted...

...produce materials, that were previously unobtainable, and provide novel, efficient routes to materials, that are **currently** difficult to produce.